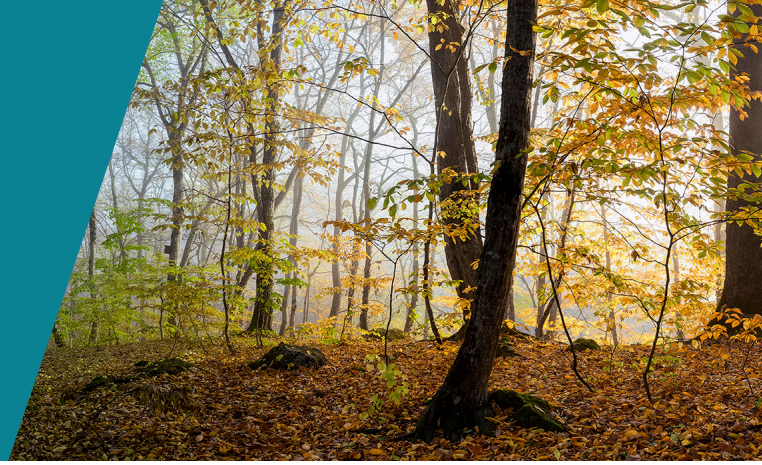
ANNUAL 2020



CLIMATE TRENDS AND VARIATIONS BULLETIN

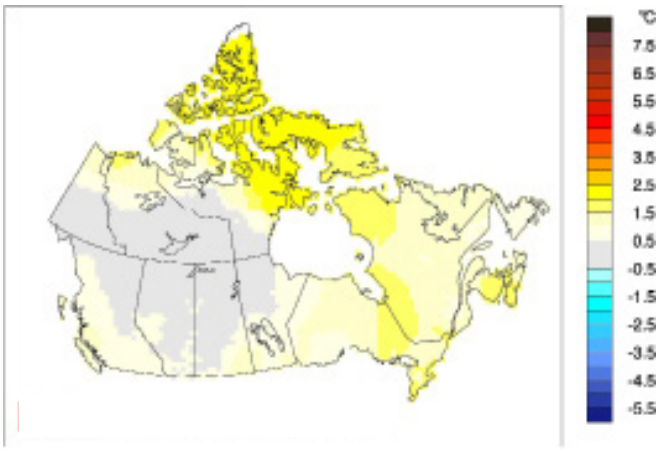
This bulletin summarizes recent climate data and presents it in a historical context. It first examines the national average temperature for the season and then highlights interesting regional temperature information.

Over the past decade, precipitation monitoring technology has evolved and Environment and Climate Change Canada and its partners implemented a transition from manual observations to using automatic precipitation gauges. Extensive data integration is required to link the current precipitation observations to the long term historical manual observations. The update and reporting of historical adjusted precipitation trends and variations will be on temporary hiatus pending the extensive data reconciliation, and will resume thereafter. ECCC remains committed to providing credible climate data to inform adaptation decision making, while ensuring the necessary data reconciliation occurs as monitoring technology evolves.

NATIONAL TEMPERATURE

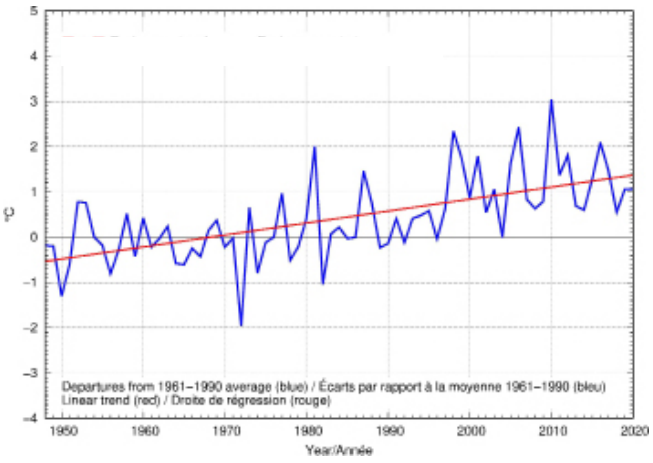
The national average temperature for the year 2020 (January to December) was 1.1°C above the baseline average (defined as the mean over the 1961–1990 reference period), which is the 14th warmest observed since nationwide recording began in 1948 (based on preliminary data). The warmest year occurred in 2010, when the national average temperature was 3°C above the baseline average. The coolest year occurred in 1972, when the national average temperature was 2°C below the baseline average. The temperature departures map shows that all of eastern Canada, and parts of central and western Canada experienced annual temperatures above the baseline average. Most notably, northeastern Nunavut and northwestern Quebec experienced temperatures more than 1.5°C above the baseline average. The rest of the country experienced temperatures slightly above the baseline average.

TEMPERATURE DEPARTURES FROM THE 1961–1990 AVERAGE – ANNUAL 2020



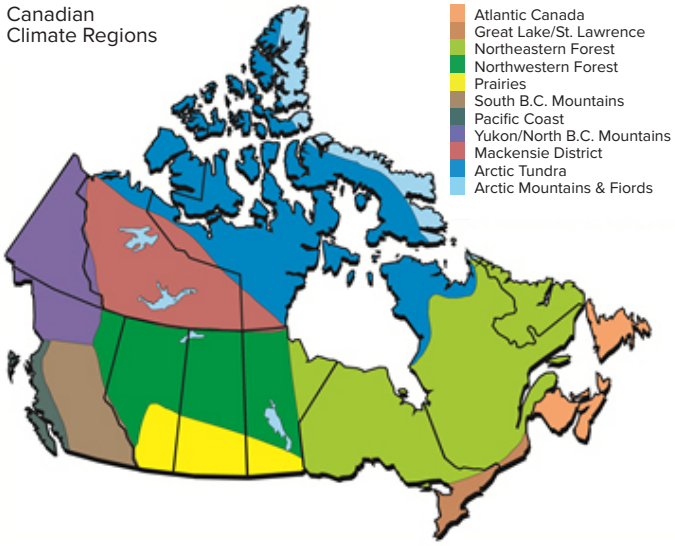
The time series graph shows that annual temperatures averaged across the country have fluctuated from year to year over the 1948–2020 period. Since 2005, the averaged annual temperatures have remained above the baseline average. The linear trend indicates that annual temperatures averaged across the nation have warmed by 1.8°C over the past 73 years.

ANNUAL NATIONAL TEMPERATURE DEPARTURES AND LONG-TERM TREND, 1948–2020



REGIONAL TEMPERATURE

When examined on a regional basis, the average annual temperature for 2020 was among the 10 warmest on record, since 1948, for three of the eleven climate regions. These regions were Atlantic Canada (5th warmest at 1.3°C above average), the Great Lakes/St. Lawrence region (9th warmest at 1.4°C above average) and the Arctic Mountain and Fiords region (9th warmest at 2.1°C above average). Average annual temperatures for 2020 were not among the 10 coolest on record, since 1948, for any of the eleven climate regions. Average annual temperatures for all eleven climate regions exhibit positive trends over the 73 years of record. The strongest regional trend (+2.8°C) was observed in the Mackenzie District region, while the weakest trend (+0.8°C) was found in the Atlantic Canada region. A table listing the regional and national temperature departures and rankings from 1948 to 2020 and a table that summarizes regional and national trends and extremes summaries are available upon request to ec.btvc-ctvb.ec@canada.ca.



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